

=> FIL STNGUIDE

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LAST RELOADED: Mar 12, 2004 (20040312/UP).

=> FIL REGISTRY

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STRUCTURE FILE UPDATES: 17 MAR 2004 HIGHEST RN 664302-53-8
DICTIONARY FILE UPDATES: 17 MAR 2004 HIGHEST RN 664302-53-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
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<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> file zcaplus

FILE 'ZCAPLUS' ENTERED AT 13:41:42 ON 18 MAR 2004
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FILE COVERS 1907 - 18 Mar 2004 VOL 140 ISS 12
FILE LAST UPDATED: 17 Mar 2004 (20040317/ED)

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=> FIL HCAPLUS

FILE 'HCAPLUS' ENTERED AT 13:41:46 ON 18 MAR 2004
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FILE COVERS 1907 - 18 Mar 2004 VOL 140 ISS 12
FILE LAST UPDATED: 17 Mar 2004 (20040317/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=>

=> d que 170

L42 130718 SEA FILE=HCAPLUS ABB=ON PLU=ON (INSECT OR INSECTS OR
INSECTICID? OR PEST OR PESTS OR PESTICID?)/CW
L51 665905 SEA FILE=HCAPLUS ABB=ON PLU=ON ?SILICIC ACID? OR ?SILICA?
L52 2907 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 AND L51
L53 2319 SEA FILE=HCAPLUS ABB=ON PLU=ON L52 AND PY<1999
L66 87 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((?LITHIUM? OR
?SODIUM? OR ?POTASSIUM? OR ?RUBIDIUM? OR ?CESIUM? OR ?FRANCIUM?
OR ?BERYLLIUM? OR ?MAGNESIUM? OR ?CALCIUM? OR ?STRONTIUM? OR
?BARIUM? OR ?RADIUM?) (L) (SILICATE OR SILICIC ACID))
L67 45 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((ALKALI OR ALKALINE
OR GROUP 1 OR GROUP 1A OR GROUP I OR GROUP IA OR GROUP 2 OR
GROUP 2A OR GROUP II OR GROUP IIA) (L) (SILICATE OR SILICIC
ACID))
L68 222 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((LI OR NA OR K OR RB
OR CS OR FR OR BE OR MG OR CA OR SR OR BA OR RA) (L) (SILICATE
OR SILICIC ACID))
L69 273 SEA FILE=HCAPLUS ABB=ON PLU=ON (L66 OR L67 OR L68)
L70 26 SEA FILE=HCAPLUS ABB=ON PLU=ON L69 AND ?KAOLIN?

=> d que 171

L42 130718 SEA FILE=HCAPLUS ABB=ON PLU=ON (INSECT OR INSECTS OR
INSECTICID? OR PEST OR PESTS OR PESTICID?)/CW
L51 665905 SEA FILE=HCAPLUS ABB=ON PLU=ON ?SILICIC ACID? OR ?SILICA?
L52 2907 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 AND L51
L53 2319 SEA FILE=HCAPLUS ABB=ON PLU=ON L52 AND PY<1999
L66 87 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((?LITHIUM? OR
?SODIUM? OR ?POTASSIUM? OR ?RUBIDIUM? OR ?CESIUM? OR ?FRANCIUM?
OR ?BERYLLIUM? OR ?MAGNESIUM? OR ?CALCIUM? OR ?STRONTIUM? OR
?BARIUM? OR ?RADIUM?) (L) (SILICATE OR SILICIC ACID))
L67 45 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((ALKALI OR ALKALINE
OR GROUP 1 OR GROUP 1A OR GROUP I OR GROUP IA OR GROUP 2 OR
GROUP 2A OR GROUP II OR GROUP IIA) (L) (SILICATE OR SILICIC

ACID))
L68 222 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((LI OR NA OR K OR RB
OR CS OR FR OR BE OR MG OR CA OR SR OR BA OR RA) (L) (SILICATE
OR SILICIC ACID))
L69 273 SEA FILE=HCAPLUS ABB=ON PLU=ON (L66 OR L67 OR L68)
L71 49 SEA FILE=HCAPLUS ABB=ON PLU=ON L69 AND ?CARRIER?

=> d que 172

L42 130718 SEA FILE=HCAPLUS ABB=ON PLU=ON (INSECT OR INSECTS OR
INSECTICID? OR PEST OR PESTS OR PESTICID?)/CW
L51 665905 SEA FILE=HCAPLUS ABB=ON PLU=ON ?SILICIC ACID? OR ?SILICA?
L52 2907 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 AND L51
L53 2319 SEA FILE=HCAPLUS ABB=ON PLU=ON L52 AND PY<1999
L66 87 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((?LITHIUM? OR
?SODIUM? OR ?POTASSIUM? OR ?RUBIDIUM? OR ?CESIUM? OR ?FRANCIUM?
OR ?BERYLLIUM? OR ?MAGNESIUM? OR ?CALCIUM? OR ?STRONTIUM? OR
?BARIUM? OR ?RADIUM?) (L) (SILICATE OR SILICIC ACID))
L67 45 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((ALKALI OR ALKALINE
OR GROUP 1 OR GROUP 1A OR GROUP I OR GROUP IA OR GROUP 2 OR
GROUP 2A OR GROUP II OR GROUP IIA) (L) (SILICATE OR SILICIC
ACID))
L68 222 SEA FILE=HCAPLUS ABB=ON PLU=ON L53 AND ((LI OR NA OR K OR RB
OR CS OR FR OR BE OR MG OR CA OR SR OR BA OR RA) (L) (SILICATE
OR SILICIC ACID))
L69 273 SEA FILE=HCAPLUS ABB=ON PLU=ON (L66 OR L67 OR L68)
L72 28 SEA FILE=HCAPLUS ABB=ON PLU=ON L69 AND CLAY

=> d que 176

L38 1 SEA FILE=REGISTRY ABB=ON PLU=ON CHLORFENAPYR/CN
L39 40 SEA FILE=REGISTRY ABB=ON PLU=ON CHLORFENAPYR/CNS
L73 262 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 OR L39
L75 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L73 AND (?SILICA? OR ?SILICIC?
)
L76 0 SEA FILE=HCAPLUS ABB=ON PLU=ON L75 AND PY<1999

combined hits minus records deemed ~~not~~ irrelevant

=> d ibib abs 179 1-

YOU HAVE REQUESTED DATA FROM 36 ANSWERS - CONTINUE? Y/(N):y

L79 ANSWER 1 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:509058 HCAPLUS

DOCUMENT NUMBER: 127:157973

TITLE: Solid pesticide preparations with improved
spreadability on water surfaces

INVENTOR(S): Yagyu, Norihide; Kokuritsu, Tomoyuki; Sato, Yasunori;
Yonemura, Shinji

PATENT ASSIGNEE(S): Hokko Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|--------------|
| JP 09194302 | A2 | 19970729 | JP 1996-21683 | 19960116 <-- |
| JP 2970865 | B2 | 19991102 | | |

PRIORITY APPLN. INFO.:

JP 1996-21683

19960116

AB The prepsns. contain (A) pesticides, (B) slightly water-soluble or water-insol. solvents selected from fatty acid esters, mineral-based hydrocarbon oils, or synthetic nondrying oils which have b.p. $\geq 150^\circ$ and show sp. gr. ≤ 1 when mixed with pesticides, (C) nonionic surfactants (HLB ≥ 8), (D) water-soluble polymers, and (E) mineral powders. The prepsns. float and spread well on water surfaces to exhibit high pesticidal effects. Granules containing O-Et O-(N-methoxyacetimidoyl) phenylthionophosphonate 2.0, liquid paraffin 10.0, polyoxyethylene styrylphenyl ether (HLB 10.0) 0.2, starch hydrolyzate 10.0, **clay** 67.3, **silicic acid** 10.0, and **Na lauryl sulfate** 0.5 weight% totally controlled Laodelphax striatellus even 7 days later.

L79 ANSWER 2 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:100901 HCAPLUS

DOCUMENT NUMBER: 124:138658

TITLE: Agrochemical granules containing **calcium silicate** hydrates, surfactants, and mineral-based **carriers**

INVENTOR(S): Zen, Shigekazu; Ishimoto, Yasuhiko; Katayama, Yasuyuki; Imai, Masayoshi

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|--------------|
| JP 07309702 | A2 | 19951128 | JP 1994-102863 | 19940517 <-- |
| PRIORITY APPLN. INFO.: | | | JP 1994-102863 | 19940517 |

AB Agrochem. granules contain (a) hydrophobic agrochems., i.e. pesticides or plant growth regulators, dissolved in hydrophobic solvents, (b) **Ca silicate** hydrates showing $\text{SiO}_2/\text{CaO} \geq 1.5$ (by mol), (c) surfactants, and (d) mineral-based **carriers**. The granules show high hardness (resistance to disintegration during transportation) and are rapidly disintegrated in H_2O . α -Cyano-3-phenoxybenzyl 2,2,3,3-tetramethylcyclopropanecarboxylate 10, Hisol SAS 296 20, Morwet D 425 25, Morwet EFW 2, Florite R 10, and **kaolin clay** 33 weight parts were made into granules, which were disintegrated by 60 g load/granule in a loading test, vs. by 10 g load/granule, for controls containing Hi-Sil 233 (**silica**) instead of Florite R.

L79 ANSWER 3 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:2315 HCAPLUS

DOCUMENT NUMBER: 116:2315

TITLE: Pesticide application to building materials

INVENTOR(S): Hotta, Hiroshi; Nagata, Kenji

PATENT ASSIGNEE(S): Shinto Paint Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

JP 03112902 A2 19910514 JP 1989-251471 19890927 <--
JP 06099243 B4 19941207

PRIORITY APPLN. INFO.:

JP 1989-251471 19890927

AB Microcapsules contain pesticidal active ingredient (e.g. chlorpyrifos, fenitrothion), inorg. resin liquid, and mineral **carrier**, for treatment of lumber and soil surfaces to inhibit pest growth, such as fungi, bacteria, and insects (e.g. termite). A preparation contained inorg. resin (100 parts) consisting of **potassium silicate** 50, hardening agent aluminum **silicate** 30, CaCl₂ 10, and H₃CO₃ 10%, a polyamide microcapsule 5 parts containing 20% chlorpyrifos, and 5 parts polyurethane containing 10% IF-1000. The preparation was applied to the soil of building foundation to control termite and mold.

L79 ANSWER 4 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:201798 HCAPLUS

DOCUMENT NUMBER: 114:201798

TITLE: Sustained-release insecticidal granules.

INVENTOR(S): Suzuki, Shoji; Matsumoto, Naoki; Wada, Muneo

PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|--------------|
| JP 03007202 | A2 | 19910114 | JP 1990-52368 | 19900302 <-- |
| JP 3077155 | B2 | 20000814 | | |

PRIORITY APPLN. INFO.:

JP 1989-51081 A1 19890303

AB Sustained-release granules are manufactured by coating oil sorption-free granular **carriers** with solns. containing H₂O-soluble adhesives and H₂O-insol. adhesives and overcoating with fine powders containing insecticides. Siliceous sand was coated with aqueous solution containing poly(vinylpyrrolidone) and poly(vinyl acetate), overcoated with fine powders containing carbosulfan, epoxidized soybean oil, diethylene glycol, **Na** ligninsulfonate, and **Ca silicate**, and mixed with colorant to manufacture insecticidal granules, which released 5, 20, and 38% carbosulfan in H₂O at 15° 10 min, 6 h, and 48 h later, vs. 89, 90, and 100%, without poly(vinyl acetate), resp.

L79 ANSWER 5 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1989:548919 HCAPLUS

DOCUMENT NUMBER: 111:148919

TITLE: Salt-stabilized solid pesticidal preparations

INVENTOR(S): Katayama, Yasuyuki; Horide, Fumio

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|--------------|
| WO 8806842 | A1 | 19880922 | WO 1988-JP252 | 19880310 <-- |

W: JP
RW: FR, GB, NL
EP 304492 A1 19890301 EP 1988-902538 19880310 <--
EP 304492 B1 19941207
R: FR, GB, NL
JP 2548981 B2 19961030 JP 1988-502468 19880310 <--
JP 08231322 A2 19960910 JP 1996-57368 19960314 <--
JP 2647071 B2 19970827

PRIORITY APPLN. INFO.: JP 1987-59164 19870313

AB Solid particles are prepared consisting of (1) synthetic pyrethroid benzyl esters having cyano groups at the α -position, (2) organophosphoric acid esters, (3) mineral **carriers**, and (4) at least one alkali or alkaline earth metal weak acid-salt. α -Cyano-3-phenoxybenzyl 2-(4-chlorophenyl)-3-methylbutylate 3, O,O-di-Me S-(1,2-dicarboethoxy)ethylphosphorodithioate 30, Sorpol-5060 5, Tokuseal GU-N (white carbon) 30, CaCO₃ 5, and a **kaolinite clay** to 100 parts by weight were mixed and pulverized to give a wettable preparation

L79 ANSWER 6 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1988:2178 HCAPLUS
DOCUMENT NUMBER: 108:2178
TITLE: Controlled-release systems containing inorganic microcapsules.
INVENTOR(S): Teraoka, Ryuji
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|--------------|
| JP 62201156 | A2 | 19870904 | JP 1986-44391 | 19860228 <-- |

PRIORITY APPLN. INFO.: JP 1986-44391 19860228

AB A mixture of microcapsules, containing a controlled-release substance, and a binder is impregnated into a gas-permeable **carrier** material. A composition containing **Na silicate**, a bactericide (not specified), sorbitan monolaurate, and cyclohexane was homogenized and added to NH₄HCO₃. The mixture was stirred. The particle slurry was adjusted to pH 5-6 with malic acid to give bactericide-containing **silica** microcapsules (10-50 μ m). These were mixed with styrene-butadiene rubber, using benzene as solvent. The mixture was applied onto the surface of a synthetic resin unwoven cloth. No biol. examples are given.

L79 ANSWER 7 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1987:115274 HCAPLUS
DOCUMENT NUMBER: 106:115274
TITLE: Fragrant solid insecticide
INVENTOR(S): Asase, Susumu; Takahashi, Tatsuji
PATENT ASSIGNEE(S): Hasegawa, T., Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|--------------|
| JP 61233603 | A2 | 19861017 | JP 1986-88220 | 19860418 <-- |
| JP 62054761 | B4 | 19871117 | | |

PRIORITY APPLN. INFO.: JP 1986-88220 19860418

AB A volatile liquid fragrance is impregnated into a composition containing **Ca silicate carrier** and subliming insecticide powder to give a fragrant solid insecticide. Thus, jasmine perfume 12, **Ca silicate** 3, and p-dichlorobenzene 85 g were dry-mixed and made into tablets.

L79 ANSWER 8 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1986:143995 HCAPLUS

DOCUMENT NUMBER: 104:143995

TITLE: Agrochemical **carriers**

INVENTOR(S): Iriko, Kazuo; Tamura, Komei; Edakawa, Setsuji

PATENT ASSIGNEE(S): Toyo Denka Kogyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|--------------|
| JP 60222402 | A2 | 19851107 | JP 1984-76438 | 19840418 <-- |

PRIORITY APPLN. INFO.: JP 1984-76438 19840418

AB Microcryst. CaCO_3 -**silicate** complexes with a sp. surface of >60 m^2/g and an oil absorbency of >70 $\text{mL}/100 \text{ g}$ are agrochem. **carriers**. The product stabilizes the agrochems. and increases their shelf-life. Thus, a composition containing di-Et 2-isopropyl-4-methyl-6-pyrimidinylphosphorothioate (I) 30 and microcryst. CaCO_3 -**silicate** complex (sp. surface 98 m^2/g ; oil absorbency 90 $\text{mL}/100 \text{ g}$) was kept at 50° for 6 mo. The remaining I was 96.5%.

L79 ANSWER 9 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1986:136080 HCAPLUS

DOCUMENT NUMBER: 104:136080

TITLE: Preparation of **silica** fine powder as **carrier** for pharmaceuticals and pesticides

INVENTOR(S): Uno, Ikuo; Maeda, Kyuzo; Nishiyama, Takashi

PATENT ASSIGNEE(S): Shionogi and Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|--------------|
| JP 60226826 | A2 | 19851112 | JP 1984-84818 | 19840425 <-- |

PRIORITY APPLN. INFO.: JP 1984-84818 19840425

AB A fine powder of **silica** containing <0.35% Al_2O_3 contaminant is a suitable **carrier** for pharmaceuticals or pesticides. The active agents are stabilized in the **carrier**. A procedure is described for the elimination of the contaminant Al_2O_3 from com. **Na silicate** and for the preparation of a fine powder of **silica**.

L79 ANSWER 10 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1985:608952 HCAPLUS
DOCUMENT NUMBER: 103:208952
TITLE: Floating agrochemical **carriers**
INVENTOR(S): Sekiguchi, Mikio; Takahashi, Iwao; Sakai, Shinichi;
Masui, Akio; Kojima, Toshikatsu
PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|--------------|
| JP 60142901 | A2 | 19850729 | JP 1983-247350 | 19831228 <-- |
| JP 63030281 | B4 | 19880617 | | |

PRIORITY APPLN. INFO.: JP 1983-247350 19831228
AB A composition consisting of water-soluble **carrier** powders and, optionally, granules, organic or inorg. film-forming compds. having a lower solubility than that of the water-soluble **carriers**, and active agrochems., is a floating composition for controlling water weeds and pests. Thus, a composition containing diazinon [333-41-5] 5, **Na silicate** 3, anhydrous Na₂SO₄ 92, and water 8 parts was granulated (12-32 mesh). The product controlled the water-surface insects Echinocnemis squameus and Laodelphax striatellus or rice more efficiently than a conventional granular submerged insecticide.

L79 ANSWER 11 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1985:115968 HCAPLUS
DOCUMENT NUMBER: 102:115968
TITLE: Volatile composition
PATENT ASSIGNEE(S): Enkler Business K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|--------------|
| JP 59193979 | A2 | 19841102 | JP 1983-68211 | 19830418 <-- |

PRIORITY APPLN. INFO.: JP 1983-68211 19830418
AB The composition is prepared by adding an aqueous liquid containing the volatile component to a mixture of calcined gypsum and H₂O-captive inorg. or organic compound, then solidifying. The method is especially useful in confining insecticides, deodorants, and rust inhibitors in a slow-release medium. Thus, 80 parts calcined gypsum and 20 parts Florite (**Ca silicate**) were blended, mixed with aqueous solution of Biotalk (stabilized ClO₂), then the mixture was solidified. The volatile component vaporized gradually.

L79 ANSWER 12 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1980:527157 HCAPLUS
DOCUMENT NUMBER: 93:127157
TITLE: **Silicic acid** powder as

agrochemical **carrier**
PATENT ASSIGNEE(S): Tokuyama Soda Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|--------------|
| JP 55085502 | A2 | 19800627 | JP 1978-158635 | 19781225 <-- |
| JP 61008802 | B4 | 19860318 | | |
| JP 62188968 | A2 | 19870818 | JP 1986-303788 | 19861222 <-- |
| JP 01037691 | B4 | 19890809 | | |

PRIORITY APPLN. INFO.: JP 1978-158635 19781225

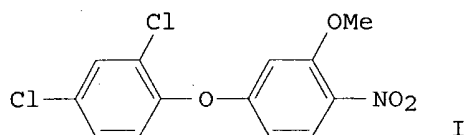
AB **Silicic acid** derivs. powder having fine pores of <150 Å diameter is a caking-free agrochem. **carrier**. Thus, porous **Na silicate** [6834-92-0] powder having a volume of fine pores (50-150 Å diameter) of 1.1 mL adsorbed 2.2 mL BPMC [3766-81-2] dissolved in lubricating oil. The product was fluid and no caking was observed after storage.

L79 ANSWER 13 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1978:116356 HCAPLUS
DOCUMENT NUMBER: 88:116356
TITLE: Solubility improvement of pesticides
INVENTOR(S): Hattori, Takahiro; Okada, Takao; Shimado, Toshihiko; Fujita, Tsunekazu
PATENT ASSIGNEE(S): Ishihara Sangyo Kaisha, Ltd., Japan
SOURCE: Jpn. Tokkyo Koho, 5 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|--------------|
| JP 52047016 | B4 | 19771129 | JP 1974-55175 | 19740517 <-- |
| JP 50154430 | A2 | 19751212 | | |

PRIORITY APPLN. INFO.: JP 1974-55175 19740517
GI



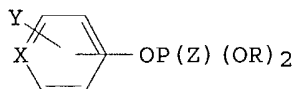
AB The solubility of pesticides in formulations containing granular **carriers** is increased by addition of carbonates or **silicates**. Thus, postemergence application of a granular composition containing chlomethoxynil
(I) [32861-85-1] and **Na metasilicate** [6834-92-0] at 300

g/are effectively controlled *Echinochloa crus-galli* (99.3%) compared to control without **silicate** (65.4%).

L79 ANSWER 14 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1976:404526 HCAPLUS
 DOCUMENT NUMBER: 85:4526
 TITLE: Granulated fertilizer with insecticidal action
 INVENTOR(S): Aries, Robert
 PATENT ASSIGNEE(S): Fr.
 SOURCE: Fr. Demande, 10 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|--------------|
| FR 2272051 | A1 | 19751219 | FR 1974-17723 | 19740521 <-- |
| FR 2272051 | B3 | 19770318 | | |

PRIORITY APPLN. INFO.: FR 1974-17723 19740521
 GI



AB A granulated N-P or N-P-K fertilizer is coated with an organic P-containing insecticide of general formula I, where R=Et or Me, X=N or CH, Y = Cl, Br, or CF₃ and Z=S or O. The insecticides used for coating were: bromophos [2104-96-3], chlorpyrifos [2921-88-2], fenchlorphos [299-84-3], dichlorfenthion [97-17-6], and fospirate [5598-52-7]. Polyalkylene, polyethylene, polypropylene glycols, **kaolin**, talc, and **silicates** were used as ~~adjuvants~~. Thus, a 15-15-15 N-P-K fertilizer (46) was coated with dichlorfenthion (2.5) and SiO₂ powder (1.5 kg); the product contained 5% insecticides.

L79 ANSWER 15 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1973:428194 HCAPLUS
 DOCUMENT NUMBER: 79:28194
 TITLE: Adsorbents containing **silicic acid** and metal **silicates** as **carriers** for plant protectives
 AUTHOR(S): Almassy, Gyula; Antal, Janos; Bohanszky, Mrs. Laszlo; Dienes, Lajos
 CORPORATE SOURCE: Budapesti Vegyimuek, Budapest, Hung.
 SOURCE: Magyar Kemikusok Lapja (1973), 28(2), 83-9
 CODEN: MGKLAL; ISSN: 0025-0163
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: Hungarian

AB A review with 58 refs. on metal **silicate**, **silica** [7631-86-9] and expanded perlite as adsorbents for pesticide formulations. Preparation and testing methods are discussed. Perlite is not suitable for pesticidal dust formulations, but could **be** used for the formulation of soil decontaminants.

L79 ANSWER 16 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1973:107018 HCAPLUS
DOCUMENT NUMBER: 78:107018
TITLE: Granular pesticides
PATENT ASSIGNEE(S): Stauffer Chemical Co.
SOURCE: Brit., 3 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----------------------|------|----------|-----------------|--------------|
| GB 1305320 | A | 19730131 | GB 1971-28168 | 19710616 <-- |
| AU 7131553 | A1 | 19730125 | AU 1971-31553 | 19710722 <-- |

PRIORITY APPLN. INFO.: US 1970-57776 19700723

AB Granular pesticides are prepared by spraying relatively nonadsorbent particles into the pesticidal solution, followed by backdrying with a finely divided, highly adsorbent powder, such as **Ca silicate**, and by repeating the process until the granules are formed with the requisite amount of pesticide around the nonadsorbent **carrier**. Thus, 86.5 g CaCO_3 chips are treated with 1/3 of a solution of 5 g N-(mercaptomethyl)phthalimide-S-(O,O-dimethylphosphorodithioate) [732-11-6] in 4 g heavy aromatic naphtha and 1 g of a tall oil fatty acid, followed by the addition of 1 g **Ca silicate**. The remaining 2/3 of the solution were added in 2 portions, together with 1 g **Ca silicate** each, to give a free-flowing granular product.

L79 ANSWER 17 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1973:39358 HCAPLUS
DOCUMENT NUMBER: 78:39358
TITLE: Granules comprising inert cores coated with an absorbent powder
INVENTOR(S): Taylor, Geoffrey Gordon
PATENT ASSIGNEE(S): Fruitgrowers Chemical Co. Ltd.
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|--------------|
| US 3672945 | A | 19720627 | US 1969-867401 | 19691017 <-- |

PRIORITY APPLN. INFO.: NZ 1968-154193 19681018

AB Granules having an absorbent coating which absorbs agricultural chems. for release on application to the desired locus were prepared by using a H₂O-soluble adhesive to bind an absorbent powder to the outside of granules of a solid inert material. For example, 270 lbs. of 22-35 mesh BBS calcite [13397-26-7] granules was blended with 10.2 lb 60% molasses solution in a ribbon blender. A damp sorbent powder mixture (64 lb) of micro-Cel E (hydrated synthetic **Ca silicate**) 32, china clay 13, and H₂O 54% was added and the mixture was blended until all the damp dust was coated onto the core particles. The coated material was then dried in a rotary dryer at 140.deg.F to < 0.5% H₂O content, and 100 lb of granules was sprayed with 11.3 lb 99% tech. parathion [56-38-2] and rotated in the dryer until free flowing.

L79 ANSWER 18 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1970:402991 HCAPLUS

DOCUMENT NUMBER: 73:2991

TITLE: Porous minerals as **carriers** for insecticidal dimethyl 2,2-dichlorovinyl phosphate

INVENTOR(S): Gancberg, Abraham; Carpentier, Raymond; Paquet, Rene

PATENT ASSIGNEE(S): UCB (Union Chimique-Chemische Bedrijven), S. A.

SOURCE: Ger. Offen., 19 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|--------------|
| DE 1948438 | A | 19700409 | DE 1969-1948438 | 19690925 <-- |
| GB 1275558 | A | 19720524 | GB 1968-45818 | 19680926 <-- |
| NL 6914339 | A | 19700401 | NL 1969-14339 | 19690922 <-- |
| FR 2019496 | A5 | 19700703 | FR 1969-32503 | 19690923 <-- |
| CH 497128 | A | 19701015 | CH 1969-497128 | 19690924 <-- |
| IL 33047 | A1 | 19740114 | IL 1969-33047 | 19690924 <-- |
| BE 739355 | A | 19700325 | BE 1969-739355 | 19690925 <-- |
| AT 298143 | B | 19720425 | AT 1969-9081 | 19690925 <-- |
| DK 126013 | B | 19730604 | DK 1969-5092 | 19690925 <-- |

PRIORITY APPLN. INFO.: GB 1968-45818 19680926

AB Porous plates of pumice, **Ca silicate** aluminate, or a amosite-**silica** agglomerate, treated with acid, were impregnated with Cl₂C:CHOP(O)(OMe)₂ (I) and protected against moisture by addition of silicon oil or polyethylene. These preps. showed insecticidal activity, "knock-down" effects, against houseflies. Thus, 20 + 3.5 + 0.65 cm plates of amosite-**silica** agglomerate were treated with 100 g 5% HO₂CCO₂H, dried at 110-20°, and impregnated with a 68.4:31.6 mixture of I and tetrachlorodiphenyl and 1% methylphenylsilicon oil.

L79 ANSWER 19 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1967:463291 HCAPLUS

DOCUMENT NUMBER: 67:63291

TITLE: Adjuvants in the preparation of pesticides

INVENTOR(S): Serrallach Julia, Jose A.

SOURCE: Neth. Appl., 38 pp.

CODEN: NAXXAN

DOCUMENT TYPE: Patent

LANGUAGE: Dutch

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|------|
| NL 6612525 | | 19670307 | | <-- |
| DE 1567138 | | | DE | |
| ES 327783 | | | ES | |
| FR 1516787 | | | FR | |
| GB 1164321 | | | GB | |

PRIORITY APPLN. INFO.: ES 19650906

ES 19660124

AB cf. **CA** 66: 1872t. The preps. of pesticide compns. containing surfactants and other additives to form liqs. or colloidal or semi-colloidal suspensions is described. The following compns. were

prepared (product, percent active material, percent surfactant, percent diluent, and ratio of components given): liquid concentrate (I), 70% dinocap,

30%

nonylphenol polyethylene glycol (0.7-10.3 mole epoxy ethanes), -, 20:1-1:20; liquid concentrate (II), 70% malathion, 30% ethylan M.C., -,

20:1-1:20:

liquid concentrate (III) 70% chlordane, 30% nonylphenol polyethylene glycol (9.5-14 mole epoxyethanes), -, 20:1-1:20; wettable powder, 30% I, -, 70% sawdust, 1:10-10:1; wettable powder, 30% II, -, 70% diatomaceous earth, 1:10-10:1; wettable powder, 30% III, -, 70% **kaolin**, 1:10-10:1; powder, 2% I, -, 20% S-78% talc., 1:200-1:10; powder, 10% II, -, 40% **kaolin**-50% talc, 1:100-1:4 and 20:1-1:20 resp., powder, 10% III, 10%, -, attapulgitic-80% talc, 100-1:4 and 20:1-1:20 resp.; liquid concentrate,

40%

I and 60% II (IV), ratio arbitrary; liquid concentrate, 40% dimethoate and 60%

II

(V), ratio arbitrary; liquid concentrate 60% II and 40% III (VI), ratio

arbitrary;

wettable powder, 40% IV, -, 60% synthetic **silicates**, 1:9-4:1; wettable powder, 70% V, -, 30% synthetic **silicates**, 1:9-4:1; wettable powder, 40% VI, -, 20% **kaolin**-40% diatomaceous earth, 1:9-4:1; powder, 10% IV, -, 60% **kaolin**-30% pyrophyllite, 1:100-1:4; powder, 15% V, -, 20% **kaolin**-65% talc, 1:100-1:4, powder, 5% VI, -, 95% talc, 1:100-1:4; liquid concentrate, 80% V and 20% Chlorfenson (VII), -, -, 100:1-3:1 (V: Chlorfenson); wettable powder, 40% VII, -, diatomaceous earth, 1:10-4:1 (diluent), powder, 20% VII, 26% synthetic **silicates**-60% talc, 1:100-1:3 (diluent).

L79 ANSWER 20 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1966:62886 HCAPLUS

DOCUMENT NUMBER: 64:62886

ORIGINAL REFERENCE NO.: 64:11796f-h

TITLE: Pesticidal formulation containing a complex of calcium carbonate and **silica**

INVENTOR(S): Nemec, Joseph W.; Nolan, Edward A., Jr.

PATENT ASSIGNEE(S): Rohm & Haas Co.

SOURCE: 4 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|--------------|
| US 3194730 | | 19650713 | US | 19570820 <-- |

AB A complex formed by the reaction of a diatomaceous **Ca silicate**, Micro-Cel, with CO₂ was used as a **carrier** for base-sensitive pesticides. CO₂ was charged into a mixture of 200 Micro-Cel 10 parts H₂O in a 1-l. round bottom flask provided with an agitator until absorption of CO₂ ceased (1.5 hrs.). In 40 min. temperature rose from 25-70°. The free flowing product, 242 parts, was an intermol. complex of CaCO₃ and SiO₂ with the carbonate in aragonite structure. For Micro-Cel and the finished product the pH (aqueous slurry), g./cc., and particle size in μ were 9.2, 0.35, 2.2 and 8.7, 0.52, 3.1, resp. Kelthane, Karathane, malathion, in the presence of the complex **carrier** and wetting and dispersing agents, were present in 90-95% of initial concentration after 1 hr. at 100°, 2 weeks at 60°, or 30-40 days at room temperature compared to 70% of initial concentration in absence of the carbonated **silicate**.

L79 ANSWER 21 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1965:406452 HCAPLUS
DOCUMENT NUMBER: 63:6452
ORIGINAL REFERENCE NO.: 63:1175b-c
TITLE: Gel fungicides, herbicides, and insecticides
PATENT ASSIGNEE(S): Fisons Pest Control Ltd.
SOURCE: 13 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|------|
| BE 641214 | | 19640612 | BE | <-- |
| FR 1426882 | | | FR | |
| NL 301648 | | | NL | |

PRIORITY APPLN. INFO.: GB 19621213

AB Finely divided basic copper chloride 350 was added to a mixture of stearic acid (I) 60, NaOH 1.4, and H₂O 800 parts which was stirred and heated to 65-70°. The mixture was stirred, cooled to 30°, 10 parts Me₃N (II) and 100 parts H₂O were added, and then allowed to stand until gelled. The gel was dispersed in H₂O 1:2 and sprayed on banana plants where it adhered under 10 cm. of artificial rain. Cu chloride, I, and II, were replaced by atrazine, **Ca silicate**, Calflo E, dieldrin, DDT, N-(p-chlorophenyl)-N'-N'-dimethylurea, 4,5,6,7-tetrachloro-quinoxaline, palmitic or arachidic acid, and Bu₂NMe, Pr₃N, Bu₂NH, resp., either sep. or in mixts.

L79 ANSWER 22 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1965:54773 HCAPLUS
DOCUMENT NUMBER: 62:54773
ORIGINAL REFERENCE NO.: 62:9720d-f
TITLE: Preparation of materials for protracted and regular reactivity of active substances
PATENT ASSIGNEE(S): CIBA Ltd.
SOURCE: 10 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|------|
| NL 6401097 | | 19640812 | NL | <-- |

PRIORITY APPLN. INFO.: CH 19630211

AB A continuous, even delivery of organic biol. active substances which are volatile, particularly biocides, is obtained by mixing the active substance with a solid which sublimates at room temperature and has a m.p. of 40-200° and an absorbent **carrier** material of fine porosity, such as SiO₂, **silicate**, dried Kiesel acid gel, activated charcoal, sawdust, cellulose, wood chips, or fiber strips. The active substance is a liquid phosphoric ester or thiophosphoric ester, in particular dimethyl dichlorovinyl phosphate (DDVP) or its derivs. The solid may be naphthalene, a chlorobenzene, camphor and its derivs., urethan, acetylurethan, menthol, or trioxane. The concentration of active substance is 20-50% by weight, as calculated on total weight of the mixture of sublimates and absorbent. A mixture of 60 parts by weight naphthalene, 30 parts

DDVP, and 10 parts SiO₂ (Hisil) is warmed until the naphthalene has melted. The mixture is cooled, with stirring until crystallization occurs. This is poured into a cylinder and closed with metal foil until used. If fiber is used as absorbent (e.g., a roll of loosely woven cotton) it is soaked in the mixture of naphthalene and DDVP. It will unroll slowly to expose a new surface as the mixture evaporates from the outside of the roll.

L79 ANSWER 23 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1965:25259 HCAPLUS
 DOCUMENT NUMBER: 62:25259
 ORIGINAL REFERENCE NO.: 62:4555f-h,4556a-c
 TITLE: Hydrophobic siliceous insecticidal compositions
 INVENTOR(S): Marotta, Ralph
 PATENT ASSIGNEE(S): Monsanto Co.
 SOURCE: 9 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|--------------|
| US 3159536 | | 19641201 | US | 19600422 <-- |

AB Partially or completely hydrophobic siliceous materials are themselves insecticidally more effective than inert dusts because the former retain their potency and low elec. conductivity under humid conditions. The bulk d. of

hydrophobic siliceous materials should be 0.2 g./cc. and the elec. conductivity not over 10⁻⁷ mho/cm. Natural and synthetic SiO₂, fume silicas, silica aerogels, and insol. metal silicates are prepared with Ba, Ca, Mg silicates, kaolinite, montmorillonite clays, talc, fuller's earth, bentonite, etc. Synthetic SiO₂, precipitated SiO₂, and silica aerogels can be rendered hydrophobic by coating with hydrophobic agents. The procedure comprises immersion wetting or treating silica with a hydrophobic agent dissolved in an organic solvent. It may be allowed to stand or be heated at 30-60°. The resulting material may be ground to below 20 µ. The silicas may also be sprayed with a hydrophobing agent or the material may be exposed to the vapors of monomethyltrichlorosilane, dimethyldichlorosilane, or trimethylmonochlorosilane. HCl formed by hydrolysis during treatment with chlorosilanes may be removed by air at 300° or neutralized with NH₃. SiO₂ with a surface area of 100-250 sq. m./g. is coated with about 3 to 20% of a dimethyl silicone oil, also halosilanes and polysiloxanes. The dimethyl silicone oils are prepared by hydrolysis of dimethyldichlorosilane or cohydrolysis of the latter and trimethylmonochlorosilane or by the catalytic equilibration of a mixture of cyclic dimethylsiloxanes and hexamethyldisiloxane with a minor proportion of H₂SO₄. The particles have low elec. conductivity and pick up electrostatic charges. The hydrophobic materials may also be combined with anhydrous hydrostable, nondeliquescent salt(I), e.g., CaSO₄, CuSO₄, Al₂(SO₄)₃, Na tripolyphosphate, Na metasilicate, etc., to provide insecticidal compns. which are effective over an extended period. Such compns. will not lose their insecticidal properties when exposed to humid conditions up to 3 days. It may be desirable to incorporate a physiol. active insecticide, e.g. DDT, with the siliceous powder for increased effect. Examples of the invention are given. At 56 g./min. Santocel (silica aerogel) of

15 μ size is fed into a grinder, during 25 min. and 100 g. dimethylsilicone oil is sprayed on at 4 g./min. The ground material is heated in an oven at 300° for 10 min. The resulting hydrophobe contains 7% by weight of the silicone and has the surface area, particle size and elec. conductivity described. Hydrophobic siliceous materials using aerogel,

fume **silica**, bentonite, and **kaolin** were insecticidally effective, had the proper phys. properties, and were unaffected by exposure to 100% humidity for 24 hrs., whereas, the untreated hydrophilic **silicas** were insecticidally effective when dry but lost this property after exposure as above. The compns. were evaluated for insecticidal properties on termite, roach, red flour beetle, and the two spotted spider mite. All hydrophobic materials, including those which had been exposed as described, killed 100% of the insects within 15 min. The untreated and exposed materials killed more than 20% of the insects.

L79 ANSWER 24 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1963:446632 HCAPLUS
DOCUMENT NUMBER: 59:46632
ORIGINAL REFERENCE NO.: 59:8381e-h,8382a
TITLE: Reactive siliceous substance
INVENTOR(S): Mays, R. K.; Bertorelli, O. L.
PATENT ASSIGNEE(S): J. M. Huber Corp.
SOURCE: 31 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|------|
| BE 624155 | | 19630214 | BE | <-- |
| GB 1020282 | | | GB | |

PRIORITY APPLN. INFO.: US 19611103

AB This new substance, dried at 105°, contained 75-92% SiO₂, ≥5% H₂O, and <15% other oxides. At least 80% of the SiO₂ of the corresponding 39.6 g. SiO₂/l. solution was rendered soluble in 30 min. in a 50° N NaOH solution. The composing elements were disposed in a laminar lattice with >20 micromoles SiOH/sq. m. plane BET (Brunauer-Emmett-Teller) sp. surface. The BET sp. surface was 300-500 sq. m./g., of which ≥60% was due to porosity in the particles. Pore volume was ≥36%, and pore diameter <0.002 μ , causing sorption of <0.0019 micromole. This was a paracryst. substance of high chemical reactivity, made up of leaflike, hexagonal particles 0.003-0.02 μ thick, 0.5-2 μ wide, and with 0.1-5 μ faces. It was used to prepare metallic **silicates** with using **alkali** metal, **alkaline** earth, Zn, and Pb oxides. It was used to absorb gases, liquids, odors, as humidity absorbent in salt, as support in accelerators and antioxidants for rubber, insecticides, and as charge in pigments. One kg. very finely divided **kaolin**, 55-60% of its particles <2 μ and 20-5% >5 μ with a BET sp. surface of 14.9 sq. m./g., was heated 24 hrs. at 550°, then cooled and dispersed in 1505 g. H₂O containing 2.5 g. Na₄P₂O₇. The **kaolin** contained 39.25 Al₂O₃, 45.12 SiO₂, 0.71 Fe₂O₃, 0.89 TiO₂, 0.49 CaO, 0.14 MgO, and 14.13% combined H₂O. To the well-mixed dispersion, 1190 g. 93.19% H₂SO₄ was rapidly added. The violent exothermic reaction raised the temperature to 105° in 2 min. Enough froth was formed to increase the original volume several times. H₂O in 100-200-g. amts. was added several times. With return to normal volume, enough H₂O was added to bring the acid concentration down to 30%, and the temperature dropped to 94°. The digestion was maintained 4 hrs. at this temperature

The dispersion was then cooled, H₂O diluted, filtered, and the cake well washed to eliminate Al₂(SO₄)₃. The cake was dried at 105° and pulverized. The substance contained 85.3% SiO₂, 6.52% metallic oxides, and 8.18% H₂O. The concentration of silanols was 135 micromoles/sq. m. plane sp.

surface. The acidity was 0.005 mol. equivalent/100 g. Up to 93.5% of its SiO₂ content dissolved in 50° N NaOH solution. The total BET sp. surface was 418, while the pore BET sp. surface was 380 sq. m./g. Oil absorption was 70 ml./100 g., while H₂O absorption was 14.2% in 72% relative humidity. The humidity tolerance conferred on table salt was 0.58. The **kaolin** gave similar results when heated 2 hrs. at 700-900°.

L79 ANSWER 25 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1963:39716 HCAPLUS
DOCUMENT NUMBER: 58:39716
ORIGINAL REFERENCE NO.: 58:6718a-c
TITLE: Pesticidal wettable powder and dust compositions
INVENTOR(S): Wales, Harold E.
PATENT ASSIGNEE(S): Allied Chemical Corp.
SOURCE: 4 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|--------------|
| GB 908620 | | 19621024 | GB | 19610329 <-- |
| DE 1153936 | | | DE | |

GI For diagram(s), see printed CA Issue.

AB The compns. containing decachlorooctahydro-1,3,4-methano-2H-cyclobuta [cd] pentalen-2-one (I) were effective as against pests of citrus fruits, potatoes, apples, the imported fire ant, and a wide range of chewing insects. Hexachlorocyclopentadiene and SO₃ were stirred, and the product was hydrolyzed with a large volume of aqueous **alkaline** solution. The mixture was agitated at 90-5° for 0.5 hr., neutralized with H₂SO₄, the crystalline product filtered off or centrifuged, and ground. The product had to contain 3 or 4 moles H₂O. It could **be** mixed with **carriers** such as **Mg** and **Al silicates**, **clays**, fuller's earth, gypsum or S. A typical composition was a mixture of 54.0% pesticide, 42.8 **Al silicate**, 1% Alttox 5050, 52% Polyfon H, and 0.2% Novonacco.

L79 ANSWER 26 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1962:418627 HCAPLUS
DOCUMENT NUMBER: 57:18627
ORIGINAL REFERENCE NO.: 57:3830i,3831a
TITLE: Synthetic inorganic pulverulent **carriers** for pesticides
INVENTOR(S): McKone, Colin E.; Eaton, John K.
PATENT ASSIGNEE(S): "Shell" Research Ltd.
SOURCE: 8 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|--------------|
| GB 897480 | | 19620530 | GB | 19590320 <-- |
| DE 1183307 | | | DE | |

AB Use of a small amount of a water-soluble **Ca** salt, e.g. CaCl_2 (0.2-10%), in water-dispersible pesticide powders improves the stability of the dispersion. The **carrier** is a synthetic product, preferably hydrated **Ca silicate** or SiO_2 , and preferably containing 45% more of the pesticide and 0.5-1% of a wetting agent. The components are thoroughly mixed and subjected to a hammermill.

L79 ANSWER 27 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1961:127110 HCAPLUS
 DOCUMENT NUMBER: 55:127110
 ORIGINAL REFERENCE NO.: 55:23920a-d
 TITLE: Siliceous **calcium silicate** as an inert **carrier** for organic pesticides
 INVENTOR(S): Vander Linden, Carl Rene; Blair, Laurence R.
 PATENT ASSIGNEE(S): Johns-Manville Corp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|------|
| DE 1080812 | | 19600428 | DE | <-- |

AB By hydrothermal reaction, a siliceous **Ca silicate** is made from lime with diatomaceous earth, or with quartz or **silicic acid** gel in a $\text{CaO}:\text{SiO}_2$ mole ratio of 0.67:1. For example, a mixture of $2\text{CaO} \cdot 3\text{SiO}_2 \cdot 1-2.5\text{H}_2\text{O}$ and aqueous SiO_2 is made from an aqueous **Ca silicate** and a siliceous material at $182-332^\circ$ and can be used as inert **carrier**, the x-ray diagram of which shows 2 very strong lines at 3.12 and 4.12 and 1 weaker line at 8.34 Å. The $2\text{CaO} \cdot 3\text{SiO}_2 \cdot 1-2.5\text{H}_2\text{O}$ is suitable as **carrier** either for tech. aldrin with a content of at least 77.9% 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-1,4,5,8-dimethanonaphthalene, or for dieldrin containing at least 85% 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4,5,8-dimethanonaphthalene, or for toxaphene (chlorinated camphene). Thus, a suspension (a) was made from finely crushed diatomaceous earth in H_2O with a content of 143 g. solids/l. and a suspension (b) from lime hydrate and H_2O containing 238 g. solids/l. Then 470 l. of (a), 3400 l. H_2O , and 175 l. of (b) were pumped into the reaction vessel, and the container was kept at 232° for 2 hrs. The final product (CS-55) had a bulk d. of 96 g./l. and a Gardner-Coleman adsorption of 453 kg./100 kg. solids. A 75% wettable DDT powder was made by dry mixing of 375 g. powdered DDT, 50 g. **kaolinite**, 60 g. **Ca silicate** hydrate (CS-55 from above), 7.5 g. **Na** lignosulfonate, and 7.5 g. **Na** N-methyl-N-oleoyltaurine. This was subjected first to tropical storage conditions and then to hard H_2O , etc.

L79 ANSWER 28 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1961:114096 HCAPLUS
 DOCUMENT NUMBER: 55:114096
 ORIGINAL REFERENCE NO.: 55:21467h-i
 TITLE: **Carriers** for insecticides
 INVENTOR(S): Nolan, Edward Albert, Jr.; Nemec, Joseph W.
 PATENT ASSIGNEE(S): Rohn & Haas Co.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|------|
| DE 1079383 | | 19600407 | DE | <-- |
| GB 895992 | | | GB | |

AB Diatomaceous **Ca silicate** (I) treated at 0-90° with CO₂ in the presence of H₂O is suitable as a **carrier** for insecticides, especially those which are sensitive to **alkaline** conditions. Thus, 250 g. dry ice is added during 3 hrs. to 1000 parts I (H₂O content 10% by weight). The mixture is stirred for 1 hr.

L79 ANSWER 29 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1961:78100 HCAPLUS

DOCUMENT NUMBER: 55:78100

ORIGINAL REFERENCE NO.: 55:14804d-i,14805a-b

TITLE: **Carriers** for insecticidal dusts and methods for their investigation

AUTHOR(S): Shogam, S. M.; Orlov, V. L.; Epshtein, T. B.; Sidorova, S. V.; Fen'kova, E. I.

SOURCE: Trudy, Nauch. Inst. po Udobren. i Insektofungisidam im. Ya. V. Samoilova (1959), (No. 165), 36-45

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB Properties investigated were: (1) Chemical constitution. In talcs, prophyllites, and other Al and **Mg silicates**, a fundamental indication of purity of **carriers** is the content of calcified HCl-insol. residue. Supplementary indications are content of HCl-soluble combined Fe, loss on calcification, pH of aqueous extract or **alkali** content, as titrated with HCl. The allowable Fe content is a function of the degree of dispersion of Fe compds. on the surface of the particles of the **carrier**. (2) The tolerance to disintegration in the presence of insecticides. This is determined by milling in a porcelain ball mill with a ratio of porcelain balls to weight of material of 3:1. The resulting degree of dispersion is determined from (a) particle size distribution found by air separation; (b) sp. surface, as determined by resistance

to the passage of a current of air; (c) the residue on a Number 0090 sieve after wet or dry sieving. (3) The ability of the **carrier** to promote the disintegration of the insecticide. The **carrier** and the insecticide, e.g. DDT, are milled together under standard conditions, and the amount of DDT in the fraction containing particles of less than 22 µ diameter is determined (4) Phys. properties: (a) absorptive properties, i.e., porosity and hygroscopicity are determined by maintaining a sample in a desiccator above a solution of H₂SO₄ of a concentration which corresponds to

the relative humidity of the air at the given temperature, until constant weight is attained. (b) Wettability is determined by projection on a screen of the image of a drop of liquid (H₂O) supported on a layer of the powdered material which has been scattered on a glass plate coated with a solution of Canada balsam.

(c) Settling is determined by examination of the change in the distributed weight as

determined by the free fall of the powder before and after it has supported a given load. (d) Permanence is determined by the amount of residue after a given

quantity of dust supported on turning celluloid sheets has been subjected to the action of artificial rain and wind. (5) Microstructure of the **carrier** is investigated by optical and electron microscope in fractions of diams. A fibrous structure in talc is unfavorable to the effectiveness of the dust. (6) Thermal stabilities of 6% tech. DDT and of pure 4,4'-DDT, resp., were determined by heating at 120° for 2 hrs. in a

uniform air current and determination of the Cl ion content in EtOH solution of the

residue. Materials investigated were talcs, including those with a low content of calcified HCl-insol. residue and also talc substitutes: schists, **kaolin**, as such and with the addition of spindle oil, **clays**, and ashes from electrofilters. The least tendency to aggregation was observed in hydrophobic **carriers**. Addns. of talc to **kaolin** reduced the settling. Imported talc with a 93% HCl-insol. residue was most hydrophobic, and next came Spasskie pyrophyllite, followed by Shabrovski **clay**. Addition of 2% paraffin during the preparation of the dusts renders the surface of the **clay** hydrophobic. Even more hydrophobic was Spakksi talc with the addition of parafin. Talcs are the least hydrophobic, and schists and power station dusts have an intermediate position. The lowest thermal stability of DDT is found in those dusts prepared with kuvas **clay**, although the Fe₂O₃ content did not exceed 4%. A preliminary calcification at 1000° of this material inactivated the effect of the Fe compds. on the thermal decomposition of DDT. The rate of powdering of insecticides with **carriers** depends on the initial degree of dispersion of the **carriers**. For each new form of filler the optimal degree of dispersion must be established. Hydrophilic **carriers** can be made hydrophobic by addition of 2% spindle oil (mark 3V) or a 3:1 mixture of paraffin and spindle oil.

L79 ANSWER 30 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1961:61440 HCAPLUS

DOCUMENT NUMBER: 55:61440

ORIGINAL REFERENCE NO.: 55:11744f-g

TITLE: Compatibility of mineral **carriers** and heptachlor

AUTHOR(S): Lhoste, Jean; Gerard, Jean L.

SOURCE: Proc. Intern. Congr. Crop Protect., 4th, Hamburg, 1957 (1960), 2, 1193-8

DOCUMENT TYPE: Journal

LANGUAGE: French

AB Some mineral **carriers** used in the preparation of dust or granular formulations catalyze the degradation of the insecticide. The following **carriers** were found to degrade heptachlor (in order of increasing catalytic activity): talc; **silicates**; **kaolin**. CaCO₃ had no effect on the insecticide. A bioassay method was used to show that diethylene glycol was effective in stabilizing the heptachlor formulations (cf. Malina, et al., **CA** 51, 4633e).

L79 ANSWER 31 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1961:56405 HCAPLUS

DOCUMENT NUMBER: 55:56405

ORIGINAL REFERENCE NO.: 55:10823i,10824a

TITLE: Low-solubility hydrated **calcium silicate**

INVENTOR(S): Vander Linden, Carl R.; Blair, Laurence R.

PATENT ASSIGNEE(S): Johns-Manville Corp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|------|
| US 2966441 | | 19601227 | US | <-- |
| FR 1330677 | | | FR | |

AB A low-solubility hydrated **Ca silicate** having the approx. formula $2\text{CaO} \cdot 3\text{SiO}_2 \cdot 1-2.5 \text{H}_2\text{O}$ is produced by reaction of an aqueous slurry of lime and a siliceous material in a $\text{CaO}:\text{SiO}_2$ mole ratio of 0.67:1. The mixture is held at 232° for 2 hrs. while agitating in a vented container. The x-ray diffraction pattern shows very strong lines $d = 3.12 \text{ \AA}$. and $d = 4.12 \text{ \AA}$., and a medium line at $d = 8.34 \text{ \AA}$. A thermal dehydration curve shows a 10% weight loss for a temperature increase of $0-200^\circ$ and then a constant weight up to 1000° . The solubility is 39 p.p.m., which renders it practical for use as a **carrier** in the preparation of a wettable powder insecticide dispersion. The method for the preparation of a 75% wettable DDT powder is described.

L79 ANSWER 32 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1960:88065 HCAPLUS
DOCUMENT NUMBER: 54:88065
ORIGINAL REFERENCE NO.: 54:16729a-d
TITLE: The physical study of mineral powders, serving as diluents of insecto-fungicides
AUTHOR(S): Petrascu, Sever; Ilie, Maria
CORPORATE SOURCE: Agronomic Research Inst., Bucharest, Rom.
SOURCE: Acad. rep. populare Romine, Studii cercetari chim. (1957), 5, 389-94
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. Wilcoxon, et al., **CA** 26, 1377, Borchers, et al., **CA** 29, 82104. The phys. properties of a series of mineral powders (4 types of talc as **Mg silicates**, 2 types of bentonite and 2 types of **kaolin Al silicates**, 2 types of diatomaceous earth and colloidal alumina as oxides, and chalk as carbonates), employed as diluents of insecticides and fungicides have been studied. Measurement of the gravimetric consts. which influence dispersibility, i.e. d . (by means of a picnometer, toluene employed as auxiliary liquid), volumetric weight, γ , the apparent sp. weight at free pouring (10-15 detns. in a 3-cm. diameter and 6-cm. high glass cylinder); porosity, $V_i\% = 100(1-\gamma/d)$., indicated an inverse proportionality between the volumetric weight and the porosity, with the exception of the 2 diatomaceous earth samples. Measurement of the talus angle α (powder being poured in the center of a disk 10 cm. in. diameter, measuring the height of the cones - $\tan \alpha = 1/10$) indicates no correlation between it and the 3 phys. consts. determined previously. Granulometric studies of the powders have been performed by the microscopic (measuring directly the diameter of 1000-2000 granules in the microscope field at 100 enlargement), sedimentation (aqueous suspension), and screening (through a series of standard sieves) methods. The results obtained by microscopy and sedimentation were in good accord in order of magnitude, yet the first method gave a numerical dispersion. Screening results do not agree with the other results, which confirms the unsuitability of this method for the analysis of fine powders.

L79 ANSWER 33 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1956:62185 HCAPLUS
DOCUMENT NUMBER: 50:62185
ORIGINAL REFERENCE NO.: 50:11637b-e
TITLE: Finely dispersed **silicates** of low density
INVENTOR(S): Kloepfer, Harry; Frey, Artur; Weitbrecht, Gerhard; Kohl, Hans
PATENT ASSIGNEE(S): Deutsche Gold- und Silber-Scheideanstalt vorm. Roessler
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|------|
| US 2742345 | | 19560417 | US | <-- |

AB Aqueous suspensions of natural **silicates**, e.g. **clays** of the **kaolin** type or bentonites, are heated under pressure in the presence of Ca(OH)_2 . **Kaolins** or bentonites are transformed into products of extremely fine-grained nature and of considerable surface development. The Ca(OH)_2 should be added in an amount of 15-60% of the weight of the **silicate** treated, preferably 20-40% calculated as CaO . Treatment takes place in an autoclave at 150-250° under steam pressure. At 200°, the treatment takes a few hrs., at lower temps., the time is lengthened. Even lower-d. products can be obtained when the products are subjected to acid extraction. The acidity should not be lower than pH 4-5. These powders are especially useful for compounding rubber for abrasion resistance. For example, 200 g. bentonite, 60 g. slaked lime, and 1500 ml. H_2O were thoroughly mixed in a ball mill. The suspension was then introduced into an autoclave, constantly stirred, and heated to 180° for 3 hrs. The reaction product was filtered and dried at >100°. The bulk d. of the product was 120 g./l. as compared with 1138 g./l. for the original bentonite. Of the lime present, 5% was not bound and could be removed by fractional extraction with dilute HCl . The products are said to be useful as thickeners for aqueous and nonaq. liquids, as elastomer fillers, as components in insecticidal dusts, as milling aids, as decolorizers, as suspending agents in paints, as **carriers** for drugs, as stabilizers in ceramics, and also as mild abrasives and polishing agents for optical glass and in toothpastes.

L79 ANSWER 34 OF 36 HCAPLUS } COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1948:26133 HCAPLUS
 DOCUMENT NUMBER: 42:26133
 ORIGINAL REFERENCE NO.: 42:5603h-i,5604a-c
 TITLE: Dispersing, wetting, and adhesive materials for plant protection
 AUTHOR(S): Burgdorf, K.
 SOURCE: Reichsamt Wirtschaftsausbau Chem. Ber. (1942), PB 52021, 1145-53
 DOCUMENT TYPE: Journal
 LANGUAGE: Unavailable

AB A review of used and approved materials. As **carriers** for insecticidal and fungicidal dusts are mentioned lime, gypsum, chalk, asbestos, talc, **clay**, **kaolin**, and diatomaceous earth. Talc has the best adhesive qualities. A certain water content is important in **clays** which are used as **carriers**. Size and form of the **carrier** particles, and their elec. charges are also important. Colloidal oxides, **silicates**, and high-mol. hydrophile materials facilitate adhesion of dusts to dew-moistened plant surfaces. More research on the adhesiveness of dust **carrier** materials would be desirable. Adhesives for spray mixts. include: lime, **Na silicate**, starch, molasses, sugar, glue; also gelatin, casein, albumin, and their **Ca** salts; high-mol. carboxylic acids and their salts (particularly **alkaline**, **Ca**, and **Pb** salts); resin, colophony, tall oil, naphthenic acids and their salts; phosphatides, pectin, alginic acid and their salts. Interesting, but to be used in sprays with caution, are soaps of drying oils, or latex and **Na** salt of cholic acid, which form a continuous coating, or a waterproof coating obtained by means of

melamine-HCHO condensate and acid-hardening materials. Other materials mentioned include: Zn oxide; Ti oxide; dextrin; amyloextrin; erythritol; mannitol; glycerol; starch xanthate; cellulose ether; cellulose glycol ether; cellulose spent liquor; gluten; tannic acid; various sulfo oleates; condensation products of oleic acid, naphthalene, and H₂SO₄. Various anion-active and cation-active synthetic wetting and dispersing agents are considered.

L79 ANSWER 35 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1947:28251 HCAPLUS

DOCUMENT NUMBER: 41:28251

ORIGINAL REFERENCE NO.: 41:5674h-i,5675a

TITLE: Classification of insecticide dust diluents and **carriers**

AUTHOR(S): Watkins, Thomas C.; Norton, L. B.

CORPORATE SOURCE: Cornell Univ., Ithaca, NY

SOURCE: Journal of Economic Entomology (1947), 40, 211-14

CODEN: JEENAI; ISSN: 0022-0493

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB A classification of the various diluents and **carriers** used in the preparation of insecticidal dusts is proposed by W. and N., as follows: (I) Botanical flours (soybean flour; tobacco flour; walnut shell flour; wheat flour; wood flour). (II) Minerals: (1) elements (S); (2) oxides: silicon (tripolite, diatomite); **calcium** (Ca lime, **Mg** lime); (3) carbonates (calcite, dolomite); (4) sulfates (gypsum); (5) **silicates** (mica, talc, pyrophyllite, **clays** (montmorillonite group (montmorillonite, saponite, nontronite, beidellite); **kaolinite** group (**kaolinite**, nacrite, dickite, anauxite); attapulgitic group (attapulgitic, sepiolite)); phosphates (apatite), indeterminate (pumice). Botanical flours have restricted use. Most diluents used today are of mineral origin. Dana's classification (C.A. 26, 4777) has been modified and simplified in preparing the above classification. The minerals classed under the **silicates** comprise most of the insecticidal diluents. Each group is discussed with respect to its use in dusts

L79 ANSWER 36 OF 36 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1930:10534 HCAPLUS

DOCUMENT NUMBER: 24:10534

ORIGINAL REFERENCE NO.: 24:1177a-b

TITLE: Solidifying calcium nitrate and other substances from solutions

PATENT ASSIGNEE(S): I. G. Farbenindustrie AG

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|---|----------|-----------------|------|
| GB 313652 | | 19280316 | GB | <-- |
| AB | Ca(NO ₃) ₂ or other substances for use as fertilizers or for other purposes are obtained in globular or like form by spraying drops of a solution or melt into a cooling liquid, which is rotated about a vertical axis within it so as to obtain a relatively long cooling path with a small quantity of the liquid. A fine powder such as clay , gypsum, chalk, kieselguhr or Mg silicate may be suspended in the cooling liquid to form a non-adhesive coating of the | | | |

solidified particles, or substances such as $\text{Ba}(\text{OH})_2$, paraffin oil or wax may be added. CCl_4 may be used as a cooling liquid with $\text{Ca}(\text{NO}_3)_2$ and various details of procedure are given.

=> FIL STNGUIDE

Inventor Search
Chlorfenapyr Structure

114

Levy 09/282,857 Inv. & Cmpd.

03/18/2004

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DICTIONARY FILE UPDATES: 17 MAR 2004 HIGHEST RN 664302-53-8

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LAST RELOADED: Mar 12, 2004 (20040312/UP).

=> => d que 1146
L146 6 SEA FILE=HCAPLUS ABB=ON PLU=ON "KIMLER JOSEPH"/AU

=> d ibib abs 1146 1-6

L146 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:353979 HCAPLUS
DOCUMENT NUMBER: 136:336653
TITLE: Sprayable insecticidal chlorfenapyr composition
containing an abrasive
INVENTOR(S): **Kimler, Joseph**
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 6 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| US 2002054898 | A1 | 20020509 | US 1999-282857 | 19990331 |
| PRIORITY APPLN. INFO.: | | | US 1998-80117P | P 19980331 |

AB A sprayable insecticidal composition having significantly increased efficacy comprises an effective amount of an insecticide, such as chlorfenapyr; an abrasive, such as an alkaline earth metal silicate, an alkali metal silicate, silica, kaolin clay or a mixture thereof; a low level of a surfactant; an inert carrier, such as kaolin clay; and, optionally, a film-forming inhibitor, such as calcium chloride.

L146 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:23636 HCAPLUS
DOCUMENT NUMBER: 132:60506
TITLE: Ureido-free poison baits containing cellulose for termite control
INVENTOR(S): **Kimler, Joseph; Colbert, Donald Robert**
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|-------|-------|-----------------|-------|
| ----- | ----- | ----- | ----- | ----- |

JP 2000007516 A2 20000111 JP 1999-163578 19990610
PRIORITY APPLN. INFO.: US 1998-89511P P 19980616
AB The baits, useful as wood preservatives, contain termiticides, 88-99%
cellulose sources selected from birch, (partially) decayed birch,
cellulose derivs., and/or purified cellulose, and optionally approx.
0.5-2.0% agar. A bait containing crystalline cellulose 5.0, decayed birch wood
93.7, agar 1.0, and hydramethylnon 0.3% showed good palatability to
termites (*Reticulitermes hesperus*).

L146 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:490064 HCAPLUS
DOCUMENT NUMBER: 122:233358
TITLE: Water-dispersible granular compositions comprising
dinitroaniline and imidazolinone herbicides with
montmorillonite carriers.
INVENTOR(S): Kimler, Joseph; Kubisch, Robert
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: U.S., 6 pp. Cont.-in-part of U.S.5, 296, 450.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| US 5393731 | A | 19950228 | US 1993-164169 | 19931208 |
| US 5294594 | A | 19940315 | US 1992-996221 | 19921223 |
| US 5296450 | A | 19940322 | US 1992-996412 | 19921223 |
| JP 07252107 | A2 | 19951003 | JP 1994-321203 | 19941201 |
| CA 2137412 | AA | 19950609 | CA 1994-2137412 | 19941206 |
| IL 111895 | A1 | 20011031 | IL 1994-111895 | 19941206 |
| AU 9480281 | A1 | 19950615 | AU 1994-80281 | 19941207 |
| HU 69066 | A2 | 19950828 | HU 1994-3504 | 19941207 |
| BR 9404897 | A | 19950808 | BR 1994-4897 | 19941208 |

PRIORITY APPLN. INFO.: US 1992-996221 A2 19921223
US 1992-996412 A2 19921223
US 1993-164169 A 19931208

AB The invention relates to water dispersible granular compns. comprising a
dinitroaniline herbicide (pendimethalin, trifluralin, isopropalin,
ethalfluralin, benfluralin, oryzalin) and an imidazolinone herbicide
(imazaquin, imazethapyr, imazamethapyr, imazapyr) with a montmorillonite
carrier, wetting agent, suspension agent and dispersion agent. The
dispersion agent comprises a base and a water-swellaable polymer, such as
croscarmellose Na and microcryst. cellulose. Such compns. are storage
stable and possess desirable dispersion properties.

L146 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:248770 HCAPLUS
DOCUMENT NUMBER: 122:25883
TITLE: Herbicidal extruded granules.
INVENTOR(S): Johnson, Jerry Lee; Kimler, Joseph
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: Eur. Pat. Appl., 8 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| EP 623281 | A1 | 19941109 | EP 1994-105286 | 19940405 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE | | | | |
| CZ 285958 | B6 | 19991215 | CZ 1994-941 | 19940419 |
| JP 07048211 | A2 | 19950221 | JP 1994-109051 | 19940425 |
| CA 2122235 | AA | 19941029 | CA 1994-2122235 | 19940426 |
| ZA 9402907 | A | 19950103 | ZA 1994-2907 | 19940426 |
| AU 9460708 | A1 | 19941103 | AU 1994-60708 | 19940427 |
| AU 666436 | B2 | 19960208 | | |
| BR 9401619 | A | 19941122 | BR 1994-1619 | 19940427 |
| CN 1096411 | A | 19941221 | CN 1994-104836 | 19940427 |
| PL 173810 | B1 | 19980529 | PL 1994-303227 | 19940427 |
| RO 115928 | B1 | 20000830 | RO 1994-725 | 19940427 |
| SK 279407 | B6 | 19981104 | SK 1994-492 | 19940428 |
| US 5476835 | A | 19951219 | US 1994-270983 | 19940705 |

PRIORITY APPLN. INFO.:

US 1993-54764 A 19930428

AB The composition comprises an active ingredient, such as an imidazolinone herbicide, an inert carrier, a wetting agent, and a dispersing agent. Thus, a composition comprised: imazaquin (95%) 77.1, Morwet EFN 1.0., Morwet D-425 3.0, and kaolin clay 18.9% weight/weight The compns. are dust free, storage stable, readily dispersible, and environmentally compatible.

L146 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:429280 HCAPLUS

DOCUMENT NUMBER: 121:29280

TITLE: Water dispersible granular herbicidal compositions comprising dinitroaniline herbicides, montmorillonite carrier, and a base

INVENTOR(S): **Kimler, Joseph**; Kubisch, Robert

PATENT ASSIGNEE(S): American Cyanamid Co., USA

SOURCE: U.S., 5 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| US 5296450 | A | 19940322 | US 1992-996412 | 19921223 |
| US 5393731 | A | 19950228 | US 1993-164169 | 19931208 |
| CZ 284787 | B6 | 19990317 | CZ 1993-2678 | 19931208 |
| SK 280902 | B6 | 20000912 | SK 1993-1430 | 19931215 |
| JP 06199610 | A2 | 19940719 | JP 1993-344580 | 19931220 |
| JP 3360293 | B2 | 20021224 | | |
| IL 108102 | A1 | 19970930 | IL 1993-108102 | 19931220 |
| CA 2112040 | AA | 19940624 | CA 1993-2112040 | 19931221 |
| BR 9305193 | A | 19940628 | BR 1993-5193 | 19931222 |
| AU 9352643 | A1 | 19940707 | AU 1993-52643 | 19931222 |
| AU 668779 | B2 | 19960516 | | |
| ZA 9309630 | A | 19940815 | ZA 1993-9630 | 19931222 |
| HU 69763 | A2 | 19950928 | HU 1993-3719 | 19931222 |
| HU 214222 | B | 19980128 | | |
| RU 2137366 | C1 | 19990920 | RU 1993-57731 | 19931222 |
| EP 604906 | A1 | 19940706 | EP 1993-120784 | 19931223 |
| EP 604906 | B1 | 19990526 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE | | | | |
| AT 180383 | E | 19990615 | AT 1993-120784 | 19931223 |
| ES 2132169 | T3 | 19990816 | ES 1993-120784 | 19931223 |

HK 1013217 A1 20000505 HK 1998-114618 19981222
PRIORITY APPLN. INFO.: US 1992-996221 A2 19921223
US 1992-996412 A2 19921223

AB Water-dispersible granular compns. comprising a dinitroaniline herbicide and a dispersion enhancing agent are prepared by a process described. Such compns. are storage stable and contain desirable dispersion properties.

L146 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:238290 HCAPLUS
DOCUMENT NUMBER: 120:238290
TITLE: Water-dispersible granular herbicidal compositions comprising dinitroaniline herbicides, montmorillonite carrier and water-swellable polymer.
INVENTOR(S): **Kimler, Joseph**; Kubisch, Robert
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|----------|
| US 5294594 | A | 19940315 | US 1992-996221 | 19921223 |
| US 5393731 | A | 19950228 | US 1993-164169 | 19931208 |

PRIORITY APPLN. INFO.: US 1992-996221 A2 19921223
US 1992-996412 A2 19921223

AB Storage-stable title compns. comprise a dinitroaniline herbicide, such as pendimethalin, a dispersion-enhancing agent and a carrier. A suitable dispersion-enhancing agent is 1-ethenyl-2-pyrrolidinone homopolymer.

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L147 2 SEA FILE=BIOSIS ABB=ON PLU=ON "KIMLER J"/AU

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YOU HAVE REQUESTED DATA FROM FILE 'BIOSIS' - CONTINUE? (Y)/N:y

YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L147 ANSWER 1 OF 2 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 2002:32909 BIOSIS
DOCUMENT NUMBER: PREV200200032909
TITLE: Herbicidal imidazolinone extruded granular compositions.
AUTHOR(S): Johnson, J. L. [Inventor]; **Kimler, J.** [Inventor]
CORPORATE SOURCE: Lawrenceville, N.J., USA
ASSIGNEE: AMERICAN CYANAMID COMPANY
PATENT INFORMATION: US 5476835 Dec. 19, 1995
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Dec. 19, 1995) Vol. 1181, No. 3, pp. 1866. print.
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Dec 2001
Last Updated on STN: 25 Feb 2002